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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/670,641 | 09/25/2003 | David E. Altobelli | 1062/D43 | 6821 |

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BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

| EXAMINER | |
|---|---|
| LOPEZ, AMADEUS SEBASTIAN | |
| **ART UNIT** | **PAPER NUMBER** |
| 3771 | |

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/670,641 | ALTOBELLI ET AL. | |
| | Examiner | Art Unit | |
| | Amadeus S. Lopez | 3771 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *25 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-10,15-17,19 and 21-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 5-8, 16, 17, and 21-27* is/are rejected.

7)☒ Claim(s) *2-4,9,10,15 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/25/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Information Disclosure Statement*

The examiner has considered the reference disclosed within the Information Disclosure Statement filed on 9/25/2006.

### *Response to Amendment*

The examiner acknowledges the amendments made to the drawings and specification and herby withdraws the objections as set forth in the office action filed on 6/29/2006.

### *Response to Arguments*

Applicant's arguments filed 9/25/2006 have been fully considered but they are not persuasive. The argument made by the applicant to the rejection of claims 8, 16, 17, and 22-27 that the Kamen reference teaches determining the volume of a liquid and not to an aerosol volume is not persuasive. As stated in the rejection of the listed claims within the prior office action, the examiner has interpreted that the volume of aerosol and fluid are the same entity, and that it is inherent that the fluid disclosed by Kamen is capable of being an aerosol because it is well known in the art that aerosols can be in liquid form. Further, the device taught by Kamen is fully capable of performing the same function as that of the instant application.

### *Terminal Disclaimer*

The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because: The assignee has not established its ownership interest in the patent, in order to support the terminal disclaimer. There is no submission in the record establishing the

ownership interest by either (a) providing documentary evidence of a chain of title from the original inventor(s) to the assignee and a statement affirming that the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11, or (b) specifying (by reel and frame number) where such documentary evidence is recorded in the Office (37 CFR 3.73(b)). It should be noted that applicant is not required to pay another disclaimer fee as set forth in 37 CFR 1.20(d) when submitting a replacement or supplemental terminal disclaimer.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1, 5, 6, and 7 are provisionally rejected on the ground of nonstatutory double patenting over claims 1 and 2 of copending Application No. 10/670924. This is a

provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: a variable acoustic source coupled to a volume, the volume being divided into an air region and a fluid region, the fluid region having a fluid output; a microphone acoustically coupled to the volume; a processor configured to receive a signal from the microphone, and further configured to receive a signal from the microphone, and further configured to allow an amount of fluid to exit the fluid region, the amount of fluid being associated with the determined volume of the air region; and an atomizer coupled to the fluid output, the atomizer configured to aerosolize at least a portion of the amount of fluid to exit the fluid region (Claim 1). Apparatus wherein the processor is configured to send a control signal to the fluid valve (Claim 2). Apparatus further comprising : a target region coupled to the fluid valve and in selective communication with an air tank through an air valve (Claim 2). An apparatus wherein the processor is further configured to send a control signal to the air valve (Claim 2).

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. **Claims 8, 16-17 and 22-27 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5575310 to Kamen et al.**

3. **With regards to claim 8,** what is taught and shown by Kamen et al is a processor configured to calculate an aerosol volume and to output a volume signal associated with the calculated aerosol volume; receive an acoustic signal representing an acoustic property of a volume; calculate, using the received acoustic signal, a quantity associated with a first volume; receive the volume signal and output a signal for controlling a valve, the output signal being associated with the received acoustic signal

and with the received volume signal (The examiner has interpreted that the volume of aerosol and fluid are the same entity, and also it is inherent that the fluid taught by Kamen et al could be an aerosol; Col. 2, line 20 to Col. 3, line 11; Col. 11, lines 50-57; Col. 12, lines 17-38). What is not taught or shown by Kamen et al is the use of a second processor, but in the disclosure of the instant application the applicant states that "for the purposes of the invention, processor 104 and the second processor can be the same processor."

4. **With regards to claim 16 and 17,** what is taught and shown by Kamen et al is a method comprising: calculating a plurality of acoustic resonances associated with a variable volume chamber; calculating a volume of the variable-volume chamber, the calculated volume being associated with at least one of the plurality of acoustic resonances; receiving an aerosol volume signal associated with a volume of an aerosol; and outputting an amount of fluid, the amount of fluid being associated with the aerosol volume signal and with the calculated volume of the variable-volume chamber (The examiner has interpreted that the volume of aerosol and fluid are the same entity, and also it is inherent that the fluid taught by Kamen et al could be an aerosol; Col. 2, line 64 to Col. 3, line 11; Col. 11, lines 50-57; Col. 12, lines 17-38). It is therefore inherent that the device of Kamen et al has a medium storing instructions to cause its processor to carry out the method claimed above.

5. **With regards to claims 22 and 25,** what is taught and shown by Kamen et al is a method comprising: calculating a volume of the variable-volume chamber, the calculated volume being associated with an acoustic property of the variable-volume

chamber; receiving an aerosol volume signal associated with a volume of an aerosol; and outputting an amount of fluid, the amount of fluid being associated with the aerosol volume signal and with the calculated volume of the variable-volume chamber (The examiner has interpreted that the volume of aerosol and fluid are the same entity, and also it is inherent that the fluid taught by Kamen et al could be an aerosol; Col. 2, line 64 to Col. 3, line 11; Col. 11, lines 50-57; Col. 12, lines 17-38). It is therefore inherent that the device of Kamen et al has a medium storing instructions to cause its processor to carry out the method claimed above.

6. **With regards to claims 23 and 26,** what is taught and shown by Kamen et al is the method wherein the acoustic property of the variable-volume chamber is an acoustic resonance of the variable-volume chamber (Col. 7, line 60 to Col. 8, line 11).

7. **With regards to claims 24 and 27,** what is taught and shown by Kamen et al is the method wherein the acoustic property of the variable-volume chamber is an amplitude of an acoustic wave in the variable-volume chamber (Col. 9, lines 10-18; Col. 10, lines 39-44).

***Allowable Subject Matter***

8. Claims 2-4, 9-10, 15, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amadeus S. Lopez whose telephone number is (571) 272-7937. The examiner can normally be reached on Mon-Fri 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amadeus S Lopez
Examiner
Art Unit 3771
November 29, 2006

ASL

TEENA MITCHELL
PRIMARY EXAMINER